



Agriculture and  
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# CANADA-SASKATCHEWAN IRRIGATION DIVERSIFICATION CENTRE

Canada 

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UNIVERSITY OF  
SASKATCHEWAN



Saskatchewan

CSIDC 2009



# INTRODUCTION

The Canada-Saskatchewan Irrigation Diversification Centre (CSIDC) is a world class irrigation research, demonstration and education partnership and facility dedicated to sustainable irrigation. Development of the Centre over the past 60 years has been driven by the challenge and the desire to meet the needs of our clients and to serve the irrigation industry. We are proud of the accomplishments of the first 60 years and look forward to serving our clients into the future.



## BACKGROUND

CSIDC originated as the Prairie Farm Rehabilitation Administration (PFRA) Farm at Outlook, Saskatchewan in 1949. The farm was established prior to the construction of the Gardiner Dam to demonstrate irrigation and to assist farmers in their transition to irrigated agriculture. It was known as the Pre-Development Farm.

In 1967, after the official opening of Gardiner Dam, it became known as the PFRA Demonstration Farm. The activities of the farm were broadened. Greater emphasis was placed on demonstrating irrigation technology and on investigating a diverse range of crops. To ensure that activities of the farm were relevant, input was sought from irrigation farmers and provincial specialists. This was the origin of the role CSIDC would later play in co-ordinating irrigation research and demonstration activities.

In 1986 the Centre was renamed the Saskatchewan Irrigation Development Centre (SIDC) with the signing of a Memorandum of Understanding (MOU) between Agriculture and Agri-food Canada (AAFC) and Saskatchewan Agriculture & Food (SAF). The objective of the SIDC was to better co-ordinate the irrigation related Research, Demonstration and Extension programs of AAFC, SAF and the University of Saskatchewan (U of S). The facilities at SIDC were significantly upgraded and modernized at this time. In addition, irrigation research and demonstration benefited from two major federal/provincial programs: The 1986 Saskatchewan Irrigation Based Economic Development (SIBED) agreement and the 1994 Partnership Agreement on Water Based Economic Development (PAWBED). These programs provided R & D funding that significantly intensified program activity at the Centre and helped move the industry forward.



**In 1998** an MOU was signed which recognized the importance and vital role of industry at the Centre. An MOU was signed between AAFC, Sask Water and two representatives of the industry: The Saskatchewan Irrigated Projects Association (SIPA) and the Irrigation Crop Diversification Corporation (ICDC). The centre was renamed the Canada-Saskatchewan Irrigation Diversification Centre (CSIDC). This agreement was designed to better co-ordinate activities between research organizations and industry and to make CSIDC the focal point for irrigation research and demonstration.

**In 2008,** a five year strategic framework agreement, the Canada-Saskatchewan-Industry Framework Agreement for Irrigation Based Economic Development and Environmental Sustainability, was signed. This agreement welcomed the University of Saskatchewan as a partner at CSIDC along with AAFC, Saskatchewan Ministry of Agriculture (SMA), ICDC, and SIPA.



Canada-Saskatchewan  
Irrigation  
Diversification  
Centre

Announcement of the CSIDC Framework Agreement 2008



# STRATEGIC FRAMEWORK AGREEMENT – 2008-2013

- i) The purpose of the Framework Agreement is to continue to provide a mechanism whereby irrigation research, demonstration and education can be conducted, and the results disseminated and applied. The agreement provides a means for the partners to work together in support of irrigation-based economic development and environmental sustainability.
- ii) The primary objectives of the Framework Agreement are:
  - a) Create a mechanism that promotes and supports a coordinated approach between the parties, and within the agricultural industry, to promote irrigation-based economic development and environmental sustainability;
  - b) Establish a management structure and provide core resources to facilitate a coordinated and cooperative approach to irrigation research, demonstration, education and public awareness; and to
  - c) Provide for the collaborative use of the CSIDC's lands and facilities to conduct irrigation research, demonstration and education activities.

# FACILITIES

Located at Outlook, Saskatchewan, CSIDC is a modern applied research and demonstration facility. It consists of a 135 hectare land base equipped with a full range of modern irrigation equipment and technology. Nineteen hectares of subsurface drainage allow environmental monitoring and treatment comparison. Water is supplied to the centre by a computer controlled pressurized pipe system.

CSIDC has a full range of small plot to commercial sized agricultural equipment. It includes a potato and vegetable storage and handling facility complete with a quality assessment laboratory. In addition a heated greenhouse, a well equipped shop, an automated weather station and a modern office are part of the facilities.



# MANAGEMENT AND STAFF

An Executive Management Committee (EMC) is responsible for enacting the CSIDC Framework Agreement. Each partner agency delegates two individuals as members of the EMC. The committee reviews, amends and approves the annual work plan for CSIDC to ensure that research, demonstration and education activities meet the objectives of the agreement.

CSIDC has a highly qualified and experienced team of research, technical, extension, operational, administrative and management staff that effectively address the research, demonstration and extension needs of the industry. These staff contributions are provided by AAFC, SMA, U of S, SIPA and ICDC.





# PROJECT ACTIVITY

The project activity conducted by the partners at CSIDC is brought to the Management Committee for review, evaluation, and rating. Project suitability is based on the potential to increase the economic impact of crops grown under irrigation, to increase on-farm profitability, and to protect and sustain the environment. Projects include evaluating new and existing crops and cultivars in a changing environment, developing Beneficial Management Practices (BMP) for sustainable irrigated crop production and resource protection, evaluating management practices for improved water use efficiency, and supporting the transfer and adoption of improved practices and technologies.

Each year the work at the Centre is highlighted at the annual CSIDC Field Day and trade show, as well as numerous commodity tours and extension events.



# ACHIEVEMENTS

CSIDC has made significant contributions to irrigated agriculture over the years. The following are among the more noteworthy achievements:

- 1) Evolution from the PFRA Predevelopment Farm of 1949 to today's multi-partnered applied research facility.
- 2) Applied research to measure and to demonstrate on a field scale the significant energy savings and improved water application efficiency made possible using low energy application technology. This technology has been widely adopted by irrigators.
- 3) Demonstration of the first solar powered centre pivot irrigation system in Canada.
- 4) Contribution toward identification of the Northern Vigor™ concept in seed potatoes and refinement of seed production agronomy. A major expansion of Saskatchewan seed potato production followed.
- 5) Development and annual publication of the Crop Varieties for Irrigation guide.
- 6) Development of water use efficiency indicators for irrigation under Canada's National Agri-environmental Health Analysis and Reporting Program (NAHARP).

- 7) Contribution toward identifying suitable varieties and agronomic practices for irrigated dry bean production. This profitable crop option has been adopted by Saskatchewan irrigators.
- 8) Field scale demonstration of the successful reclamation of a salt affected area using subsurface drainage and fall leaching.
- 9) Update and publication of the Irrigation Economic and Agronomics guide for irrigators.
- 10) Development of a series of comprehensive Irrigation Training Modules in English, Chinese and Spanish. They have been used in Canada and abroad in Egypt, China, Ethiopia, Iran, Cuba, Chile, and Afghanistan.





## Notes